ABSTRAK

Penelitian ini bertujuan untuk mengembangkan dan menghasilkan LKS praktikum berbasis inkuiri terbimbing pada pokok materi reaksi oksidasi-reduksi, serta mengetahui kualitas LKS praktikumnya. Metode penelitian yang digunakan adalah metode penelitian dan pengembangan menurut Sukmadinata dengan langkah-langkah penelitian yang terdiri dari tahap studi pendahuluan dan tahap pengembangan model. Tahap studi pendahuluan meliputi studi kepustakaan LKS praktikum pada 21 bahan ajar, survei lapangan pada 10 sekolah, dan penyusunan produk awal. Tahap pengembangan model hanya berupa uji coba terbatas meliputi uji keterlaksanaan terhadap LKS praktikum pada 24 siswa kelas XI salah satu SMA Kota Bandung, penilaian jawaban siswa, penjaringan respon siswa, dan penjaringan penilaian LKS praktikum oleh 14 guru kimia. Instrumen penelitian yang digunakan adalah lembar analisis LKS praktikum, pedoman wawancara, lembar observasi keterlaksanaan, pedoman penilaian jawaban siswa, angket respon siswa, dan lembar penilaian guru. Hasil penelitian pada tahap studi pendahuluan menunjukkan bahwa pelaksanaan praktikum pada pokok materi reaksi oksidasi-reduksi masih jarang, begitu pula penggunaan LKS praktikum berbasis inkuirinya. Karakteristik LKS praktikum pada pokok materi reaksi oksidasi-reduksi dalam bahan ajar yang tersedia hampir seluruhnya berupa *cookbook*, sedangkan karakteristik LKS praktikum yang dikembangkan berupa LKS praktikum berbasis inkuiri terbimbing. LKS praktikum yang dikembangkan berisi percobaan reaksi oksidasi-reduksi antara alumunium dalam limbah beralumunium dan larutan HCl dengan hasil prosedur praktikum yang optimal menggunakan limbah beralumunium berukuran 1cm x 1,5cm, konsentrasi larutan HCl 6M, volume larutan HCl 3mL, dan waktu optimum 5 menit. Hasil penelitian pada tahap pengembangan model menunjukan bahwa keterlaksanaan tahapan inkuiri pada LKS praktikum yang dikembangkan adalah sangat baik (99,58%) dan kualitas keterlaksanaan tahapan inkuirinya berdasarkan jawaban siswa adalah baik (77,66%). Respon siswa terhadap kualitas LKS praktikum yang dikembangkan termasuk dalam kategori baik (79,43%) dan respon siswa terhadap kualitas keterlaksanaan praktikum dengan menggunakan LKS praktikum yang dikembangkan termasuk dalam kategori sangat baik (85,68%). Penilaian guru terhadap kualitas LKS praktikum yang dikembangkan berdasarkan aspek kesesuaian konsep dan aspek kesesuaian tata bahasa termasuk dalam kategori sangat baik dengan rata-rata persentase skor masing-masing 81,08% dan 82,66%.

Kata kunci: LKS praktikum, inkuiri, reaksi oksidasi-reduksi

ABSTRACT

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The aim of this research was to develop and produce guided inquiry lab-based worksheet on the topic oxidation-reduction reactions, and knowing of its quality. The research method used was research and development according to the steps Sukmadinata (2012) consisted of a preliminary study stage and model development stage. Preliminary study stage includes field survey in 10 schools, literature study on 21 teaching materials, and initial product design. Model development stage consists of limited tests, including lab worksheet feasibility test to 24 students class XI in one of senior high school at Bandung, students answer assessment, student response networking, and lab worksheets assessment networking by 14 chemistry teacher. The research instrument used was a sheet analysis lab worksheets, interview guidance, activity observation sheets, assessment guidelines for students answer related to the worksheet tasks, student's respons questionnaire, and sheets of lab worksheets assessment by teachers. The research results on preliminary study stage indicates that the practical implementation on the lesson topic reaction of oxidation-reduction are rare, so did the use of inquiry lab-based worksheets. Characteristics lab worksheets on the lesson topic reaction of oxidation-reduction in the available teaching materials almost entirely in the form of cookbook, whereas the characteristics of lab worksheets developed in the form of guided inquiry-based lab worksheets. Lab worksheet that is being developed contain reaction of oxidation-reduction between aluminum from the waste that contain alumunium and HCl solution with results of optimal procedure used waste that contain alumunium with measure 1cm x 1.5cm, concentration of HCl solution was 6M, volume of HCl solution was 3ml, and the optimum time was 5 minutes. The research result on model development stage indicates that the feasibility of inquiry on lab worksheets developed was very good (99.58%) and the quality of the feasibility of inquiry based students answer related to the worksheet task was good (77.66%). Student's response to the quality of the developed lab worksheets included in good category (79.43%) and student's response to the quality of practical implementation feasibility using lab worksheets developed included in the very good category (85.68%). The assessment from teacher shows that the quality from the lab worksheets developed based on the accordance with the concept and the terms of language (grammar) was included in the very good category with an average percentage score respectively 81.08% and 82.66%.

Keywords: lab worksheet, inquiry, oxidation-reduction reaction